

**Just Passing Through:  
No, Common Ground found with the University of Montana and  
Several Tribal Colleges in Montana!**



What do Harlem, GLOBE, Flagstaff and the University of Montana have in common? GLOBE training of course! And we are not just passing through! A wonderful partnership was established earlier with a few Tribal Colleges in the state and the University of Montana.

In August 2001 GLOBE facilitated a GLOBE TTT meeting for numerous Tribal Colleges throughout the United States. A co-sponsor of this meeting was a branch of NASA, Minority University- SSpace Interdisciplinary Network (MU-SPIN: <http://muspin.gsfc.nasa.gov/>). James Harrington's contributions were not only helpful in what opportunities NASA provided, but also in providing travel allowances.

"Weaving Common Ground" was the theme of the week long workshop and it did just that. Bringing in representatives from all over the US, including Hawaii, Alaska and all seven tribal colleges in Montana, Dr. Georgia Cobbs, GLOBE Director at the University of Montana, was able to establish a working relationship with several participants from her own state. Various ceremonial rituals and elders sharing their knowledge greatly enhanced the "common ground" we were all walking that week in Flagstaff. From this common ground networking and future plans were established.

Plans began for GLOBE Teacher Training at Rocky Boy Community College. As GLOBE information was dispersed in their respective local community, further plans developed with Chief Dull Knife College and Ft. Belknap Community College for other teacher workshops.

Early fall of 2001, Burt Medicine Bull, GLOBE Training Coordinator at Chief Dull Knife and Dr. Georgia Cobbs, traveled to Rocky Boy Indian to work with Doug Crebs, science instructor and the GLOBE Coordinator for the Reservation. Several teachers came for the training, including one for updated information. Discussions included how best to implement GLOBE in the classroom and gain community support.

By spring 2002, Chief Dull Knife was ready to host a GLOBE Teacher Training with the help of Dr. Georgia Cobbs. Lame Deer is a mere 500 miles from The University of Montana. What a gorgeous site for training, especially with the contrasting rich soil from the Missoula Valley. Burt Medicine Bull opened the workshop with the ceremonial ritual of burning sweet grass. Atmosphere and soils protocols were explored and data collected. Below Burt is helping folks with the GLOBE website and data entry.



Later in the summer of 2002, Ft. Belknap Community College hosted a GLOBE Teacher Training. A reunion of sorts was in order for three GLOBE trainers trained in Flagstaff a year earlier: John Hays from Hays/Lodge Pole School, Arlene Bigby, from Harlem Schools. Both of these schools are on the Ft. Belknap Indian Reservation. All three helped with the training.



Three trainers trained at the Flagstaff GLOBE TTT, co-sponsored by MU-SPIN. From the left are John Hays and Arlene Bigby, both from Ft. Belknap Indian Reservation. Burt Medicine Bull, on the far right, from Northern Cheyenne Indian Reservation.

This joint effort was to blend Native American traditional knowledge with the scientific knowledge of GLOBE. Once again we opened the training with sweet grass burning to welcome the spirit to help us in the training. We then delved into the soils protocol. Teachers learned about soils and their moisture capabilities in the learning activity, Just Passing Through. They

were amazed at how soil type absorbed or didn't absorb water. Getting into the activity provided quite the hands-on experience for these teachers (see below)



GLOBE can be overwhelming for many teachers with land cover, soils, hydrology and atmosphere protocols to learn. As it turned out, the atmosphere protocol was going to be a great fit for the fourth grade curriculum. Weather is an integral part of their studies and the data collection will add to their unit.



Navigating through the Ft. Belknap Indian Reservation was adventurous too. Above teachers are learning GPS from Burt Medicine Bull. In addition to teaching GPS, Burt sang his native Cheyenne Badger song, sharing the importance of the badger to Mother Earth according to Cheyenne tradition. According to this tradition, the badger was the caretaker of the soil for Mother Earth. When spring arrived, it was the Thunderbeing working in unison with the badger to awaken Mother Earth. The badger was given the power by Mother Earth to revive or awaken all landcover that had been asleep for the winter season. The Cheyennes would offer the badger tobacco and food offerings for a good growing season. The words in the badger song say, "I am the caretaker of the soil, I am the spirit power". It was a special moment for the GLOBE Director of Montana to learn of this tradition and experience it with the others. After the badger song, a few teachers shared more traditional knowledge passed down from their elders.



Of course we went to the nearby Milk River for the hydrology and the soils protocol. Was the soil ever different down by the river compared to the topsoil on the Ft. Belknap College Campus! Bill Peterson (below), a GLOBE outreach specialist for Montana, is explaining some of the run off effects from local farming. There were a few farmers and others in the crowd who understood these effects quite well. Downstream one can find the effects of fertilizing and compost without too much difficulty. Bill also pointed out that glacier effects are still evident in some areas in the watershed.



Of course we had to input our data into the training website! Not always an easy task, but with perseverance and time, Dr. Georgia Cobbs, University of Montana GLOBE Director, showed the teachers how to get smiley faces!



At least one more joint effort is underway. The University of Montana is co-hosting a GLOBE TTT with Salish-Kootenai Community College. Once again this is a result of the Flagstaff training that took place almost two years ago now. Networking, support and continued communication continues long after the common ground was established. It appears the weaving worked and hopefully further collaboration will be forthcoming.